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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/125,958	08/26/1998	TOMOYUKI OHTANI	5162-46	8366

757 7590 05/20/2003

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CHICAGO, IL 60611

EXAMINER

LEE, CHI HO A

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 05/20/2003

24

Please find below and/or attached an Office communication concerning this application or proceeding.

2

# Office Action Summary

Application No.

09/125,958

Applicant(s)

OHTANI ET AL.

Examiner

Andrew Lee

Art Unit

2663

~ The MAILING DATE of this communication appears on the cover sheet with the correspondence address ~  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 5-8, 11-17, 25, 26, 37, 38 and 40-64 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 7, 8, 13-17, 25, 26, 37, 38, 40-48, 50-57 and 59-64 is/are allowed.

- 6) ☒ Claim(s) 5, 6, 11, 12, 49 and 58 is/are rejected.

- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 20, 23. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 5, 6, 49, and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by Upadrasta U.S. Patent Number 5,872,820.

Re Claim 5, '820 Patent teaches in fig. 2, the mobile station 200 comprising a Mobile Frame Number Counter 280 (a frame number adder); Radio transceiver 260 (a transmitter) wherein the frame number is determined based on time lag that represent the calculated delay in receiving and decoding the signal (expected delay time) (See fig. 5 and col. 5, lines 14-56).

Re Claim 6, refer to Claim 5, wherein the mobile station 200 (a receiver) determines the frame number based on the time lag.

Re Claim 49, refer to Claim 6, base station 250 has a Frame number counter 253 (a clock generator & a frame number generator), wherein fig. 4 teaches the frame structure (frame length) that is inherently dependent on the type of service/protocol, transmitter 255.

Art Unit: 2663

Re Claim 58, refer to Claim 49, further teaches the mobile station 220 for having a buffer for receiving the uplink frame comprising of SCB of fig. 4 (a downlink frame number); Mobile Frame Number Counter 280 (a frame number generator); Controller & DSP 220 240 collectively (a frame synchronization unit).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Upadrasta U.S. Patent Number 5,872,820 in view of Bellec U.S. Patent Number 5,838,746.

Re Claims 11 and 12, '820 Patent teaches in fig. 2, the mobile station 200 comprising a Mobile Frame Number Counter 280 (a frame number adder); Radio transceiver 260 (a transmitter) wherein the frame number is determined based on time lag that represent the calculated delay in receiving and decoding the signal (expected delay time) (See fig. 5 and col. 5, lines 14-56).

'820 Patent fails to explicitly teach "wherein a real delay time exceeds the expected delay time, the expected delay time is updated."

However, '746 Patent teaches enabling radio frames to be transmitted between terminals and radio base stations such the distance apart that causes the transmission delay between the terminals and the stations is smaller than a certain limit (See

Art Unit: 2663

abstract). The maximum transmission delay (a real delay time) is associated with the maximum distance between the mobile and the radio station that is known to the base station. One skilled in the art would have realized that when the determined delay exceeds the maximum allowable delay, the mobile is out of range of the base station. One skilled in art would have been motivated to recompute the delay (expected delay) after handing off to the new base station to maintain connectivity with the network.

Therefore, it would have been obvious to one ordinary skilled incorporate the teaching of '746 patent into the teaching of '820 patent.

#### ***Allowable Subject Matter***

5. Claims 7, 8, 13-17, 25, 26, 37, 38, 40-48, 50-57, 59-64 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Re Claims 40-48, 50-57, and 59-64, prior art fails to a frame extraction unit for obtaining an estimated delay due to communication between each base station and MSC according to the type of service and attributes of the base station whereby determining timing of extraction of uplink frame from the buffer, on the basis of the estimated delay and frame number.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 5, 6, 11, 12, 49, and 58 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2663

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 703-305-1500. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

AI

May 18, 2003